

REMARKS

Applicants have amended the Abstract to be less than 150 words. Therefore, claims 1-4 currently are pending in the above-captioned patent application and are subject to examination. No new matter is added by the foregoing amendments, and these amendments are fully supported by the specification. Applicant respectfully requests that the Examiner reconsider the above-captioned patent application, in view of the following:

The Examiner objected to the Abstract as allegedly including more than 150 words. Applicants have amended the Abstract to include less than 150 words. Therefore, Applicants respectfully request that the Examiner withdraw the objection to the Abstract.

The Examiner rejected claims 1-4 under 35 U.S.C. § 102(b), as allegedly being anticipated by U.S. Patent No. 6,022,929 to Chen *et al.* ("Chen"). Applicants respectfully traverse this rejection, as follows.

Applicants independent claim 1 describes "a control method for a premixed compression ignition internal combustion engine in which a gaseous mixture of an oxygen-containing gas and a fuel is compressed and self-ignited within a cylinder, wherein **cyclohexene** is mixed with the fuel to be supplied to said premixed compression ignition internal combustion engine, and **the mixing amount of cyclohexene is changed according to the operating conditions of said internal combustion engine.**" For example, as set forth in Applicants' specification, the amount of cyclohexene mixed with the fuel may be adjusted based on the load of the internal combustion engine. See, e.g., Appl'n, Page 5, Lines 1-7.

In contrast to Applicants' claimed invention, Chen merely describes an additive which may be added to fuel and/or lubricating oils. See, e.g., Chen, Column 57, Lines 58-60. The additive includes a hydrocarbon or substituted hydrocarbon having from 2 to 22 carbon atoms. See, e.g., *Id.* at Abstract, Lines 7-10. Specifically, Chen states that “[w]hen the additives of this invention are used in normally liquid petroleum fuels such as middle distillates boiling from about 65.degree. C. to 430.degree. C., including kerosene, diesel fuels, home heating fuel oil, jet fuels, etc., a concentration of the additives in the fuel in the range of typically from about 0.001 to about 0.5, and preferably 0.005 to about 0.15 wt. %, based on the total weight of the composition, will usually be employed.” *Id.* at Column 57, Lines 60-67. Moreover, “the additives of the present invention may be mixed with other types of additives selected to perform at least one desired function.” *Id.* at Column 60, Lines 43-45. “Typical of such formations are detergent/inhibitor, viscosity modifier, wear inhibitor, oxidation inhibitor, corrosion inhibitor, friction modifier, foam inhibitor, rust inhibitor, demulsifier, lube oil flow improvers, and seal swell control.” *Id.* at Lines 45-50.

Assuming Arguendo that the hydrocarbon and/or substituted hydrocarbon described in Chen may be cyclohexene (C_3H_5), such that the additive includes cyclohexene, Chen still does not disclose or suggest several of the limitations of Applicants' independent claim 1. For example, in Chen, the amount of additive included in the fuel is predetermined. As such, the amount of the additive mixed with the fuel is not in anyway adjusted based on the operating conditions of an internal combustion engine, as set forth in independent claim 1. In addition, in Applicants' claimed invention, the purpose of adjusting the amount of cyclohexene mixed with the fuel based on the

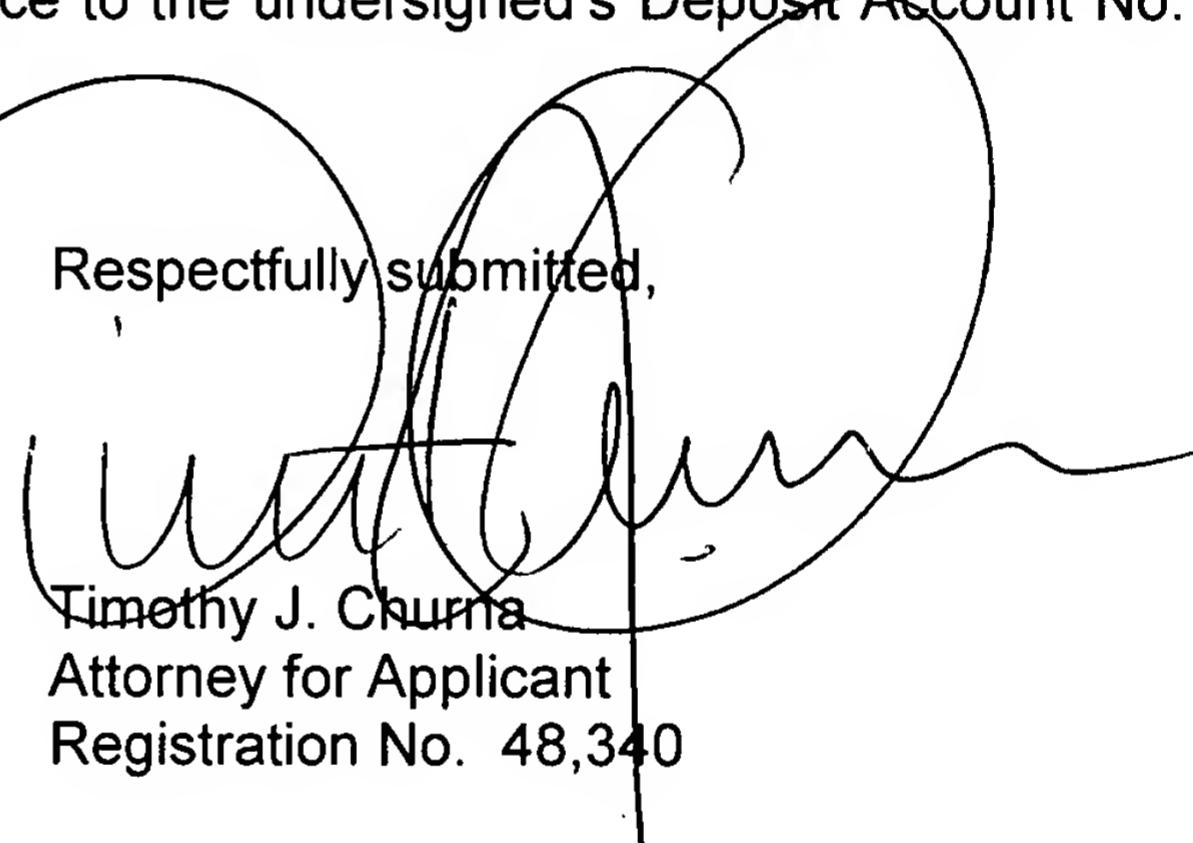
operating conditions of the engine is to adjust the ignition timing, which is wholly unrelated to an additive that functions as a “detergent/inhibitor, viscosity modifier, wear inhibitor, oxidation inhibitor, corrosion inhibitor, friction modifier, foam inhibitor, rust inhibitor, demulsifier, lube oil flow improvers, and seal swell control,” as described in Chen. Moreover, the only time Chen even mentions an internal combustion engine is with respect to a lubricating oil for a crankcase of an internal combustion engine, which is wholly unrelated to Applicants’ claimed invention. See, e.g., *Id.* at Column 58, Lines 32-41. Therefore, Applicants respectfully request that the Examiner withdraw the anticipation rejection of independent claim 1.

Claims 2-4 depend from allowable independent claim 1. Therefore, Applicants respectfully request that the Examiner withdraw the anticipation rejection of claims 2-4.

CONCLUSION

Applicants respectfully submit that the above-captioned patent application is in condition for allowance, and such action is earnestly requested. If the Examiner believes that an in-person or telephonic interview with Applicants' representatives would expedite the prosecution of the above-captioned patent application, the Examiner is invited to contact the undersigned attorney of records. Applicants believe that no fees are due as a result of this response to the outstanding Office Action in the above-captioned patent application. Nevertheless, in the event of any variance between the fees determined by Applicants and those determined by the U.S. Patent and Trademark Office, please charge any such variance to the undersigned's Deposit Account No. 01-2300.

Respectfully submitted,



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